

## HISTORIC AMERICAN ENGINEERING RECORD

Central Furnaces

OH-12

Master Photo List

On the east bank of the Cuyahoga River at 2650 Broadway, approximately 1.25 miles southeast of the Public Square, Cleveland, Cuyahoga County, Ohio.

- OH-12-1 Copy of Drawing, "American Steel & Wire Co., Central Furnace Works -- Sketch of Plant Showing Tracks & Buildings, 1913, Revised 3/10/31." Drawing courtesy United States Steel Corporation, Lorain, Ohio. Credit Berni Rich, Score Photographs, August 1979, for photos 1 through 4 and 7 through 11.
- OH-12-2 Copy of Drawing, "American Steel & Wire Company, Central Furnaces & Docks, General Plan of Works Showing Trestle, 1-3-39." Drawing courtesy of United States Steel Corporation, Lorain, Ohio.
- OH-12-3 Copy of Drawing, "United States Steel Central Furnaces and Docks, General Plan, 4-26-62, Rev. 12-15-69." Drawing courtesy of United States Steel Corporation, Lorain, Ohio.
- OH-12-4 Copy of a 19th-century photograph of Henry Chisholm, one of the founders of the Cleveland Rolling Mill Company. Photo courtesy of the Cleveland Picture Collection, Cleveland Public Library.
- Oh-12-5 Copy of a c. 1880 Photograph showing the Newburgh Blast Furnaces of the Cleveland Rolling Mill Company. Photo courtesy of the Western Reserve Historical Society. The Western Reserve Historical Society, photographer, November, 1979.
- OH-12-6 Copy of a c. 1893 photograph of the Newburgh Steel Works of the Cleveland Rolling Mill Company. Photo Courtesy of the Western Reserve Historical Society. The Western Reserve Historical Society, November, 1979.

- OH-12-7 Copy of a photograph taken c. 1910 showing the ore-handling plant at Central Furnace, including two Hullet electric unloaders with 10-ton capacity buckets and a 10-ton capacity rehandling and stocking bridge with a central span of 238 feet. Photo courtesy of Ralph A. Dise, Cleveland Heights, Ohio.
- OH-12-8 Copy of a photograph taken c. 1912 of Furnace "D" blown-in 17 July 1911, the fourth experimental "thin-lined furnace" to be built in the United States. Photo courtesy Ralph A. Dise, Cleveland Heights, Ohio.
- Oh-12-9 Copy of photograph taken c. 1909 showing the trestle bins which received the raw materials - ore, coke, and limestone - for transfer to the furnaces. Photo courtesy Ralph A. Dise, Cleveland Heights, Ohio.
- OH-12-10 Copy of a photograph taken c. 1910 showing American Steel & Wire's campaign for safety on the job: "The Fence of Safety Around the Happy Home. . . Every Broken Picket Means One Lost Time Accident." Photo courtesy Ralph A. Dise, Cleveland Heights, Ohio.
- OH-12-11 Copy of a photograph taken c. 1909 showing the 15-ton ladle cars into which the molten iron flowed. The hot iron then either traveled by rail to the Newburgh Steel Works, a distance of six miles, or else was cast into pigs. Photo courtesy Ralph A. Dise, Cleveland Heights, Ohio.

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Addendum to

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On the east bank of the Cuyahoga River at 2650 Broadway,  
approximately 1.25 miles southeast of the Public Square.  
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Ohio

NOTE: All photographs were taken by Jet Lowe, HAER photographer, during the  
summer of 1979.

- OH-12-12      Ore unloading dock, looking south. Dock, built in 1908, featured  
two 10-ton-capacity Hulett unloaders (shown here) built by the  
Wellman-Seaver-Morgan Co. of Cleveland.
- OH-12-13      Blast furnace plant embraces the east bank of the Cuyahoga River.  
Plant was established in 1881 by the Cleveland Rolling Mill Co.  
It was absorbed by the American Steel and Wire Co. in 1899 and,  
two years later, by the U. S. Steel Corp., which closed it in  
1978. View looking north.
- OH-12-14      Blast furnaces D (at left) and A, looking west.
- OH-12-15      Blast furnaces D (at center) and A, looking west.
- OH-12-16      Coke "fines" bin at Furnace D. After delivery to the trestle  
bins, the coke was screened and the coke "fines" or breeze, were  
transported by conveyor to the coke fines bins where it was  
collected and loaded into dump trucks. The coke fines were then  
sold for fuel to a sinter plant in Lorain, Ohio.
- OH-12-17      Furnace D, looking east, from the west of the Cuyahoga River.
- OH-12-18      Furnace D, looking north. At far left is the "tripper" car,  
which distributed ore and limestone into trestle bins below.  
The "larryman" then weighed and discharged these materials into  
skip cars, which carried them to the top of the furnace.
- OH-12-19      Inside the cast house at Furnace A. Molten iron flowed into  
eight ladles. The furnace was cast (or tapped) six times each day.

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- OH-12-20 Detail, Furnace A, shows the drill used to tap the furnace (at center left) and the "mud gun" used to close it up with a clay plug (at lower right). Metal chute at center (next to drill) was used to clean out furnace prior to its abandonment.
- OH-12-21 Interior, Turbo Blower Building. Furnace-blowing engines included one Elliot and two Brown-Boveri steam-drive turbines (shown here). The north end of the building house the plant's machine shop.
- OH-12-22 Detail, Furnace D, showing skip cars (center), flanked by two of the furnace stoves.
- OH-12-23 Boiler House, looking north. Gas bleeder stack at center right.
- OH-12-24 A close-up look at the trestle. Tripper car, which distributed ore and limestone into bins below, can be seen at center right. In the distance is the plant's standpipe. View is looking north.
- OH-12-25 View looking southwest from furnaces shows the ore and limestone storage bins. Ore and limestone were carried by conveyor, seen at far left, to the tripper car, which in turn distributed them into the trestle bins.
- OH-12-26 West elevation, Furnace A, looking east.
- OH-12-27 Bollinger twin-chain tandem, pig-casting machine, located at the north end of the plant. Prior to closing, approximately 40 percent of the plant's iron production was cast into pigs and sold to foundry customers. The pig-casting machine employed a controller, lime man, trough man, and crane operator.
- OH-12-28 Turbo Blower Building (1927), looking south. Large pipes, center, carried the hot air blast to the stoves of Furnaces A and D.
- OH-12-29 Blast furnace plant, looking southeast. The Machine Shop and Turbo Blower Building are at left, the pig-casting machine and Furnace A at center right. In foreground are the 50-ton ladle cars used to transport hot metal to Valley Mould & Iron Co.
- OH-12-30 Detail, 50-ton ladle car.

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- OH-12-31 Locker room. While at work, laborers stored their street clothes in lockers. At the end of their shift, work clothes--sweaty and damp--were placed into open metal baskets and raised to the ceiling by chain and pulley. They were thus able to dry before the next day's use.
- OH-12-32 Blast Furnaces A and D, looking south, along trestle.
- OH-12-33 Detail, corroded stairs on stoves to central furnaces.